

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-14 (Canceled)

15. (New) A precipitated silica exhibiting:

a CTAB specific surface of 140 to 230 m²/g,

a DOP oil uptake of greater than 300 ml/100 g,

a water uptake of less than 6% and preferably of greater than 3%,

a pH of 3.5 to 7.5,

a level of residual anion, expressed as sodium sulfate, of less than or equal to 2%, and

a mean particle size or a median particle diameter of less than 30 μm.

16. (New) A precipitated silica according to claim 15, exhibiting:

a CTAB specific surface of 145 to 185 m²/g,

a DOP oil uptake of 315 to 450 ml/100 g,

a water uptake of less than 6% and greater than 3%,

a pH of 4 to 7,

a level of residual anion, expressed as sodium sulfate, of less than or equal 1.5%, and

a mean particle size or a median particle diameter of between 30 μm and 20 mm.

17. (New) A precipitated silica according to claim 16 exhibiting:

a CTAB specific surface of 150 to 185 m²/g,

a DOP oil uptake of greater than 320 to 400 ml/100 g,

a water uptake of greater than or equal to 4% and of less than or equal to 5.8%,

a pH of 4 to 6, and

a level of residual anion, expressed as sodium sulfate, of less than or equal to 1%.

18. (New) A precipitated silica according to claim 17, exhibiting:

a CTAB specific surface of 150 to 180 m²/g,

a DOP oil uptake of 340 to 380 ml/100 g, and

a level of residual anion, expressed as sodium sulfate, of less than or equal to 0.5%,

19. (New) The silica as claimed in claim 1, having a mean particle size or a median particle diameter of less than 30 µm, preferably of less than 20 µm, in particular of between 5 and 15 µm, especially between 8 and 13 µm.

20. (New) The silica as claimed in claim 15, having a mean particle size or a median particle diameter of between 30 µm and 20 mm.

21. (New) The silica as claimed in claim 15, having a median particle diameter, after deagglomeration under ultrasound, of at most 35 µm, optionally of at most 25 µm.

22. (New) The silica as claimed in claim 15, having a BET specific surface such that the BET-CTAB difference is at most 30 m²/g, optionally at most 10 m²/g.

23. (New) The silica as claimed in claim 15, having a packing density of at most 0.3 g/ml, optionally of 0.04 to 0.3 g/ml.

24. (New) The silica as claimed in claim 15, in the form of a powder.

25. (New) A process for the preparation of a silica as claimed in one claim 15, comprising the following stages:

(a) producing a starting vessel heel with a temperature of between 80 and 100°C, optionally of greater than or equal to 90°C, comprising water and a silicate, with a concentration of silicate in said vessel heel, expressed as SiO₂ equivalent, being less than or equal to 15 g/l;

(b) adding, at a temperature of between 80 and 100°C, optionally 90 and 100°C, an acidifying agent to bring the pH of the medium to a value of between 7 and 8, optionally between 7.3 and 7.7 to form a medium;

(c) in the medium thus produced in stage (b), carrying out, at a temperature of between 80 and 100°C, optionally between 90 and 100°C, a simultaneous addition of a silicate and of an acidifying agent, with a respective amounts of silicate and of acidifying agent added over time being specifically chosen so that, throughout the duration of the addition:

the pH of the reaction medium remains between 7 and 8 and optionally between 7.2 and 7.8; and

the concentration of silicon in the medium, expressed as SiO₂ equivalent, remains less than or equal to 35 g/l;

(d) adding, at a temperature of between 80 and 100°C, optionally between 90 and 100°C, an acidifying agent to the medium obtained on conclusion of stage (c) so as to bring the medium to a pH of between 3 and 6.5 to obtain an aqueous silica dispersion;

(e) filtering the aqueous silica dispersion obtained in stage (d) in order to obtain a filtration cake;

(f) drying the filtration cake produced on conclusion of the stage (e), optionally

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washing it beforehand; and

(g) optionally milling or micronizing the silica obtained on conclusion of stage (f), wherein the filtration cake exhibits, prior to the drying of it in stage (f), a loss on ignition at 1000°C of greater than 82%, optionally of 84 to 88%.

26. (New) Shoe soles comprising a silica as defined in claim 15.

27. (New) A matrix based on silicone(s) comprising a silica as defined in claim 15 as reinforcing filler.

28. (New) A carrier for liquids comprising a silica as defined in claim 15..

29. (New) A dentifrice composition in the paste or gel form comprising a silica as defined in claim 15 as a thickening agent.

30. (New) Battery separators comprising a silica as defined in claim 15.